

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An interface method for a logical circuit comprising a logical operation element, comprising:

defining a hardware interface, using a first interface definition language which is partly common to a second interface definition language directed to a software object, ~~object such that a part of the first interface definition language and a part of the second interface definition language use the same language to specify an interface name, a function name, and an argument and a return value for each function, wherein the first interface definition language has means for defining a plurality of functions, each function having a function name, and a function return value, and at least one function having at least one function argument;~~

providing at least ~~means for inputting a function identifying register for~~ identifying the function name defined by the first interface definition language for a server interface circuit in order to realize the interface among the ~~means for inputting function identifying register~~ identifying register for identifying the function name defined by the first interface definition language, ~~means an input/output register for inputting and outputting storing~~ the argument, and ~~means a return value register for outputting storing~~ the return value;

determining whether the function is the at least one function having the at least one function argument; and

performing at least one of inputting the function argument, outputting the function argument and outputting the function return value, the function return value being generated by a random number generator.

wherein the software object is capable of realizing the hardware interface independently of the server interface circuit by using only the second interface definition language, and

~~wherein the hardware interface includes a function identifying a device register language.~~

2. (Currently Amended) An interface method for a logical circuit comprising a logical operation element, comprising:

defining a hardware interface, using a first interface definition language which is partly common to a second interface definition language directed to a software object ~~object, such that a part of the first interface definition language and a part of the second interface definition language use the same language to specify an interface name, a function name, and an argument and a return value for each function,~~ wherein the first interface definition language has means for defining a plurality of functions, each function having a function name and a function return value, and at least one function having at least one function argument; and

providing at least ~~means for outputting~~ a function identifying register for identifying the function name defined by the first interface definition language for a client interface circuit in order to realize the interface among the function identifying register ~~means for outputting for identifying~~ for identifying the function name defined by the first interface definition language, ~~means an input/output register for inputting and outputting~~ storing the argument, and ~~means a return value register for inputting~~ storing the return value;

determining whether the function is the at least one function having the at least one function argument; and

performing at least one of inputting the function argument, outputting the function argument and outputting the function return value, the function return value being generated by a random number generator,

wherein the software object is capable of realizing the hardware interface independently of a server interface circuit by using only the second interface definition language, and

~~wherein the hardware interface includes a function identifying a device register.~~ language.

3. (Currently Amended) An interface method for a logical circuit comprising a logical operation element, comprising:

defining a hardware interface, using a first interface definition language which is partly common to a second interface definition language directed to a software ~~object, object~~ such that ~~a part of the first interface definition language and a part of the second interface definition language use the same language to specify an interface name, a function name, and an argument and a return value for each function,~~ wherein the first interface definition language has means for defining a plurality of functions, each function having a function name and a function return value, and at least one function having at least one function argument, wherein the logical circuit comprises:

a server logical circuit, as a server interface circuit for realizing the interface, having at least ~~means for inputting~~ a function identifying register for identifying the function name defined by the first interface definition language among the ~~means for inputting~~ function identifying register for identifying the function name defined by the first interface definition language, ~~means an input/output register for inputting and outputting~~ storing the argument, and means a return value register for outputting storing the return value, value; and

a client logical circuit, as a client interface circuit for realizing the interface, having at least ~~means for outputting~~ a function identifying register for identifying the function name defined by the first interface definition language among the ~~means for outputting~~ function identifying register for identifying the function name defined by the first interface definition language, ~~means an input/output register~~ for ~~inputting and outputting~~ storing the argument, and ~~means a return value register~~ for ~~inputting~~ storing the return value, and

data being transferred from the ~~means for outputting~~ function identifying register for identifying the function name of the client logical circuit to the ~~means for inputting~~ function identifying register for identifying the function name of the server logical circuit,

the server logical circuit and the client logical circuit each having at least one of the ~~means return value registers~~ for ~~outputting~~ storing the return value and the ~~means for inputting the return value~~, and data can be transferred ~~from between~~ the ~~means return value register~~ for ~~outputting~~ storing the return value of the client logical circuit and the return value register to the means for inputting a return value; for storing a return value of the server logical circuit;

determining whether the function is the at least one function having the at least one function argument; and

performing at least one of inputting the function argument, outputting the function argument and outputting the function return value, the function return value being generated by a random number generator,

wherein the software object is capable of realizing the hardware interface directly and independently of the server logical circuit by using only the second interface definition language, and

~~wherein the hardware interface includes a function identifying a device register language.~~

4. (Currently Amended) A device having a hardware interface and a logical circuit comprising a logical operation element, which defines the hardware interface, using a first interface definition language which is partly common to a second interface definition language directed to a software object, ~~object such that a part of the first interface definition language and a part of the second interface definition language use the same language to specify an interface name, a function name, and an argument and a return value for each function,~~ wherein the first interface definition language has means for defining a plurality of functions, each function having a function name and a return value, and at least one function having at least one function argument,

wherein a server interface circuit for realizing the interface comprises ~~means for inputting a function identifying register~~ for identifying the function name defined by the first interface definition language among the ~~means for inputting function identifying register~~ for identifying the function name defined by the first interface definition language, ~~means for inputting and outputting an input/output register for storing the argument, and means for outputting a return value register for storing the return value,~~ means for determining whether the function is the at least one function having the at least one function argument, and means for performing at least one of inputting the at least one function argument and outputting the at least one function argument, the return value being generated by a random number generator, and

wherein the software object is capable of realizing the hardware interface independently of the server interface circuit by using only the second interface definition language, and

~~wherein the hardware interface includes a function identifying a device~~
~~register language.~~

5. (Currently Amended) A device having a hardware interface and a logical circuit, which defines the hardware interface, using a first interface definition language which is partly common to a second interface definition language directed to a software object such that a part of the first interface definition language and a part of the second interface definition language use the same language to specify an interface name, a function name, and an argument and a return value for each function and has means for defining a plurality of functions, each function having a function name and a function return value and at least one function having at least one function argument, comprising:

a client interface circuit for realizing the interface comprises ~~means for~~
~~outputting a function identifying register~~ for identifying the function name defined by the first
 interface definition language among the ~~means for outputting function identifying register~~ for
 identifying the function name defined by the first interface definition language, ~~means an~~
~~input/output register for storing for inputting and outputting the argument, and means a return~~
~~value register for inputting storing the return value; and~~

~~an argument number detection section for determining whether the function is~~
~~the at least one function having the at least one function argument; and~~

an argument register for inputting the at least one function argument and for
 outputting the at least one function argument,

wherein the software object is capable of realizing the hardware interface
 independently of a server interface circuit by using only the second interface definition
 language;

~~wherein the hardware interface includes a function identifying a device~~
~~register language, and~~

wherein the return value is generated by a random number generator.

6. (Currently Amended) The device according to claim 5, wherein the client interface circuit has a connection ~~terminal and a register,~~terminal, the connection terminal of the client interface is connected to the server interface circuit or a system bus, ~~and~~ when the connection terminal of the client interface is connected to the server interface circuit, the device connected with the server interface circuit is drivable via the server interface circuit, and when the connection terminal of the client interface is connected to the system bus, a value of the register within the client interface can be read via a central processing device such that the central processing device can serve in the place of the device connected with the server interface circuit.

7. (Canceled)

8. (Currently Amended) An interface method according to claim 3, further comprising:

the server logical circuit and the client logical circuit each having the ~~means for inputting and outputting the argument~~input/output register and data being transferred between the ~~means for inputting and outputting the argument~~input/output register of the server logical circuit and ~~means for inputting and outputting the argument~~the input/output register of the client logical circuit.

9. (Currently Amended) An interface method for a logical circuit comprising a logical operation element, comprising:

defining a hardware interface, using an interface definition language having means for at least defining a plurality of functions, each function having a function name and a function return value, and at least one function having at least one function argument;

providing at least ~~means for outputting a function identifying register~~ for identifying the function name defined by the interface definition language for a client interface circuit in order to realize the interface among the function identifying register ~~means for outputting~~ for identifying the function name defined by the interface definition language, ~~means an input/output register for inputting and outputting~~ storing the argument, and ~~means a return value register for storing~~ inputting the return value;

determining whether the function is the at least one function having the at least one function argument; and

performing at least one of inputting the function argument, outputting the function argument and outputting the function return value, the function return value being generated by a random number generator,

wherein the client interface circuit is capable of realizing the hardware interface independently of a server interface circuit by using another interface definition language, and

~~wherein the hardware interface includes a function identifying a device register language.~~

10. (Currently Amended) An interface method for a logical circuit comprising a logical operation element, comprising:

defining a hardware interface, using an interface definition language having means for defining a plurality of functions, each function having a function name and a return value, and at least one function having at least one argument, wherein the logical circuit comprises:

a server logical circuit, as a server interface circuit for realizing the interface, having at least ~~means for inputting a~~ function identifying register for identifying the function name defined by the interface definition language among the function identifying

~~register~~~~means for inputting~~ for identifying the function name defined by the interface definition language, ~~means for inputting and outputting~~an input/output register for storing the argument, and ~~means a return value register~~ for outputting the return value, and

a client logical circuit, as a client interface circuit for realizing the interface, having at least ~~means for outputting~~a function identifying register for identifying the function name defined by the interface definition language among the ~~means for outputting~~function identifying register for identifying the function name defined by the interface definition language, ~~means for inputting and outputting~~an input/output register for storing the argument, and ~~means for inputting~~a return value register for storing the return value, and

data being transferred from the ~~means for outputting for identifying the function name~~function identifying register of the client logical circuit to the ~~means for inputting for identifying the function name~~function identifying register of the server logical circuit,

the server logical circuit and the client logical circuit each having at least one of the ~~means for outputting the return value and the means for inputting the return value~~, return value registers, and data can be transferred ~~from between the return value register of the client logical circuit to the return value register of the server logical circuit;~~the means for outputting the return value to the means for inputting a return value;

determining whether or not the function has the at least one function argument; and

performing at least one of inputting the function argument, outputting the function argument and outputting the function return value, the function return value being generated by a random number generator.

wherein the client logical circuit is capable of realizing the hardware interface independently of the server interface circuit by using another interface definition language, and

~~wherein the hardware interface includes a function identifying a device register language.~~

11. (Currently Amended) A device having a hardware interface and a logical circuit comprising a logical operation element, which defines the hardware interface, using an interface definition language having means for defining a function name, an argument, and a return value for each function defined by the function name, wherein

a server interface circuit for realizing the interface comprises:

~~means for inputting a function identifying register~~ for identifying the function name defined by the interface definition language among the ~~means for inputting function identifying register~~ for identifying the function name defined by the interface definition language, ~~means an input/output register for storing the argument, for inputting and outputting the argument, and means a return value register for outputting storing the return value; and~~

~~an argument number detection section for determining whether the function is the at least one function having the at least one function argument; and argument,~~

~~an argument register for inputting the at least one function argument and outputting the at least one function argument;~~

wherein a client interface circuit is capable of realizing the interface independently of the server interface circuit by using another interface definition language, and

~~wherein the hardware interface includes a function identifying a device register language, and~~

wherein the return value is generated by a random number generator,

12. (Currently Amended) A device having a hardware interface and a logical circuit, which defines the hardware interface, using an interface definition language having means for defining a plurality of functions, each function having a function name and a function return value, and at least one function having at least one function argument,

wherein a client interface circuit for realizing the interface comprises ~~means for outputting a function identifying register~~ for identifying the function name defined by the interface definition language among the ~~means for outputting~~ function identifying register for identifying the function name defined by the interface definition language, ~~means an~~ input/output register for ~~inputting and outputting~~ storing the argument, and ~~means for~~ inputting a return value register for storing the return value, means for determining whether the function is the at least one function having the at least one function argument, and means for performing at least one of inputting the at least one function argument and outputting the at least one function argument,

wherein the client interface circuit is capable of realizing the interface independently of a server interface circuit by using another interface definition language, and

wherein the function return value is generated by a random number generator.~~wherein the hardware interface includes a function identifying a device register.~~

13. (Currently Amended) The device according to claim 12, wherein the client interface circuit has a connection ~~terminal and a register,~~terminal, the connection terminal of the client interface is connected to the server interface circuit or a system bus, and

when the connection terminal of the client interface is connected to the server interface circuit, the device connected with the server interface circuit is drivable via the server interface circuit, and

when the connection terminal of the client interface is connected to the system bus, a value of the register within the client interface ~~can be read~~ is capable of reading via a central processing device such that the central processing device ~~can serve~~ is capable of serving in the place of the device connected with the server interface circuit.

14. (Currently Amended) An interface method according to claim 10, further comprising:

the server logical circuit and the client logical circuit each having the ~~means for inputting and outputting the argument~~ input/output register and data being transferred between the ~~means for inputting and outputting the argument~~ input/output register of the server logical circuit and ~~means for inputting and outputting the argument~~ the input/output register of the client logical circuit.